CLAIMS:

1. An antibody that is reactive with an immunogenic peptide having contiguous amino acids derived from the gp100 sequence (SEQ ID NO: 27).

2. The antibody of claim 1, wherein said peptide is at least about 9 to 10 amino acids in length.

3. The antibody of claim 2, wherein the peptide has the sequence KTWGQYWQV (SEQ ID NO: 46), KTWGQYWQVL (SEQ ID NO: 47), ITDQVPFSV (SEQ ID NO: 48), and TITDQVPFSV (SEQ ID NO: 49).

4. The antibody of claim 2, wherein the peptide is selected from the group consisting of LLDGTATLRL (SEQ ID NO: 33), VLYRYGSFSV (SEQ ID NO: 34), VLKRCLLHL (SEQ ID NO: 36), ALDGGNKHFL (SEQ ID NO: 35), VLPSPACQLV (SEQ ID NO: 37), YLEPGPVTA (SEQ ID NO: 40), SLADTNSLAV (SEQ ID NO: 38), SVSVSQLRA (SEQ ID NO: 39), and LNVSLADTN (SEQ ID NO: 41).

5. The antibody of claim 2, wherein the peptide contains at least one amino acid modification of said gp100 sequence.

6. The antibody of claim 5, wherein the modification includes at least one amino acid substitution in said peptide sequence.

7. The antibody of claim 6, wherein said amino acid substitution is located at a position selected from the group consisting of: (i) the first position, (ii) the second position, (iii) the third position, (iv) the ninth position, (v) the tenth position, and (vi) a combination of at least two of (i)-(v) in the sequence of the peptide.

8. The antibody of claim 3, wherein said peptide contains at least one amino acid modification of said gp100 sequence.

9. The antibody of claim 8, wherein said modification includes at least one amino acid substitution in said peptide sequence.

10. The antibody of claim 9, wherein said amino acid substitution is located at a position selected from the group consisting of: (i) the first position, (ii) the second position, (iii) the third position, (iv) the ninth position, (v) the tenth position, and (vi) a combination of at least two of (i)-(v) in the sequence of the peptide.

11. The antibody of claim 4, wherein said peptide contains at least one amino acid modification of said gp100 sequence.

12. The antibody of claim 11, wherein said modification includes at least one amino acid substitution in said peptide sequence.

13. The antibody of claim 12, wherein said amino acid substitution is located at a position selected from the group consisting of: (i) the first position, (ii) the second position, (iii) the third position, (iv) the ninth position, (v) the tenth position, and (vi) a combination of at least two of (i)-(v) in the sequence of the peptide.

14. The antibody of claim 1, wherein the peptide is a native, synthetic or recombinantly produced peptide.

15. The antibody of claim 1, wherein the antibody is a monoclonal antibody.

16. An antibody that is reactive with an immunogenic peptide having a formula selected from the group consisting of $X_1X_2X_3GQYWQX_4$, $X_1X_2X_3QVPFSX_4$ and $X_1X_2X_3PGPVTX_4$, wherein:

X_1 is any amino acid;
X_2 is any hydrophobic aliphatic amino acid;
X_3 is any amino acid; and
X_4 is a hydrophobic aliphatic amino acid.

17. The antibody of claim 15, wherein X_1 is selected from the group consisting of methionine, leucine, alanine, glycine, threonine, isoleucine, valine, tyrosine, serine, tryptophan, phenylalanine, lysine and aspartic acid.

18. The antibody of claim 16, wherein X_2 is selected from the group consisting of methionine, leucine, alanine, glycine, isoleucine, valine and threonine.

19. The antibody of claim 16, wherein X_3 is selected from the group consisting of methionine, leucine, alanine, glycine, threonine, isoleucine, tyrosine, valine, tryptophan, phenylalanine, serine, lysine and aspartic acid.

20. The antibody of claim 16, wherein X_4 is selected from the group consisting of methionine, leucine, alanine, glycine, isoleucine, valine and threonine.

21. The antibody of claim 16, wherein the immunogenic peptide is selected from the group consisting of KTWGQYWQV (SEQ ID NO: 46), KLWGQYWQV (SEQ ID NO: 68), KmWGQYWQV (SEQ ID NO: 69), KIWGQYWQV (SEQ ID NO: 70), WTWGQYWQV (SEQ ID NO: 71), FTWGQYWQV (SEQ ID NO: 72), YTWGQYWQV (SEQ ID NO: 73), ATWGQYWQV (SEQ ID NO: 74), LTWGQYWQV (SEQ ID NO: 75), KTYGQYWQV (SEQ ID NO: 76), KTFGQYWQV (SEQ ID NO: 77), ALWGQYWQV (SEQ ID NO: 78), LLWGQYWQV (SEQ ID NO: 79), WLWGQYWQV (SEQ ID NO: 80), FLWGQYWQV (SEQ ID NO: 81), and YLWGQYWQV (SEQ ID NO: 82).

22. The antibody of claim 16, wherein the immunogenic peptide is selected from the group consisting of ITDQVPFSV (SEQ ID NO: 48), ILDQVPFSV (SEQ ID NO: 83), IMDQVPFSV (SEQ ID NO: 84), IIDQVPFSV (SEQ ID NO: 85), FTDQVPFSV (SEQ ID NO: 86), WTDQVPFSV (SEQ ID NO: 87), YTDQVPFSV (SEQ ID NO: 88), ITWQVPFSV (SEQ ID NO: 89), ITFQVPFSV (SEQ ID NO: 90), ITYQVPFSV (SEQ ID NO: 91), ITAQVPFSV (SEQ ID NO: 92), ITMQVPFSV (SEQ ID NO: 93), ITSQVPFSV (SEQ ID NO: 94), ILWQVPFSV (SEQ ID NO: 95), ILFQVPFSV (SEQ ID NO: 96), ILYQVPFSV (SEQ ID NO: 97), ILAQVPFSV (SEQ ID NO: 98), ILMQVPFSV (SEQ ID NO: 99), ILSQVPFSV (SEQ ID

NO: 100), WLDQVPFSV (SEQ ID NO: 101), FLDQVPFSV (SEQ ID NO: 102), and YLDQVPFSV (SEQ ID NO: 103).

23. The antibody of claim 16, wherein the immunogenic peptide is selected from the group consisting of YLEPGPVTA (SEQ ID NO. 40), YLEPGPVTV0 (SEQ ID NO:104), YLEPGPVTL (SEQ ID NO:105), YLEPGPVTI (SEQ ID NO:106), FLEPGPVTA (SEQ ID NO:107), WLEPGPVTA (SEQ ID NO:108), YLYPGPVTA (SEQ ID NO:109), YLWPGPVTA (SEQ ID NO:110), YLFPGPVTA (SEQ ID NO:111), YLMPGPVTA (SEQ ID NO:112), YLSPGPVTA (SEQ ID NO:113), YLAPGPVTA (SEQ ID NO:114), YLMPGPVTV (SEQ ID NO:115), YLSPGPVTV (SEQ ID NO:116), YLAPGPVTV (SEQ ID NO:117), YLYPGPVTV (SEQ ID NO:118), YLFPGPVTV (SEQ ID NO:119), and YLWPGPVTV (SEQ ID NO:120).

24. The antibody of claim 16, wherein the immunogenic peptide is a native, synthetic or recombinantly produced peptide.

25. The antibody of claim 16, wherein the antibody is a monoclonal antibody.